

KOOTENAI RIVER DRAINAGE

PHYSICAL DESCRIPTION

The Kootenai River drainage is in the extreme northwest corner of Montana and is entirely in Lincoln County. It originates in southeastern British Columbia (BC), flows south and west through Montana, and northwest through Idaho, then returns to Canada where it flows through Kootenay Lake and joins the Columbia River at Castlegar, BC. At the Idaho border near Leonia (lowest point in Montana 1,820 ft above sea level), it drains approximately 13,000 square miles with an average discharge of 16,100 cfs. There are 110 lakes or reservoirs in the Kootenai River Drainage, totaling 34,869 surface acres.

Libby Dam was completed in 1972 and created Lake Koocanusa which inundated and eliminated 109 miles of the mainstem Kootenai River and 40 miles of critical, low-gradient tributary habitat in Montana and BC. At full pool, Lake Koocanusa covers 46,500 acres total and 28,723 acres in Montana. A selective withdrawal system was installed on Libby Dam to control the temperature of water releases from the dam. The operation of Libby Dam for flood control and power production has changed the natural seasonal and daily flow, temperature, and productivity regimes in the Kootenai River. Mean flows during spring runoff have declined 50 percent and wintertime flows have increased substantially. Average wintertime water temperatures have increased by about 7° F, resulting in the river remaining virtually ice free. The 104 miles of Kootenai River in Montana can be divided into two distinct reaches, the 54-mile section downstream of Libby Dam (Lower Kootenai) and the 50-mile section upstream of Libby Dam (Lake Koocanusa).

LOWER KOOTENAI RIVER

The 54-mile section of Kootenai River downstream of Libby Dam is characterized by a complex combination of riffles, pools and slow moving, broad, meandering river sections. About 28 miles downstream of Libby Dam the river cascades 30 feet over the main Kootenai Falls and then drops another 60 feet through smaller falls in just less than a mile. Downstream of Kootenai Falls the river flows through a canyon which forms pools as deep as 100 feet. From there it flows similarly to the river upstream of Kootenai Falls but with deeper, slower moving runs to the Montana/Idaho border.

Numerous tributaries drain the Cabinet, Selkirk and Purcell mountain ranges and enter the Kootenai River directly or through larger tributaries. Due to past glaciations, some Kootenai River tributaries are blocked by falls near their mouths, and recruitment of fish to and from those tributaries is limited. The majority of waters in the Kootenai River drainage produce angling for trout. The Kootenai River and its tributaries, mountain lakes (including those in the Cabinet Wilderness and Northwest Peaks), lowland lakes (including portions of the Thompson Chain of Lakes), Bull, Spar, Island and Kilbrennan Lakes and Fisher River, Yaak River and Libby Creek all provide some type of recreational fishing.

LAKE KOOCANUSA

The approximately 50-mile section of Kootenai River upstream of Libby Dam is completely inundated by Lake Koocanusa. Tributaries drain the Whitefish, Salish and Purcell mountain ranges and Southern Continental Range and enter the Kootenai River in British Columbia or Lake Koocanusa directly or through larger tributaries. The majority of streams that flow into Lake Koocanusa provide fishing for trout. Lake Koocanusa and its tributaries (most notably the Tobacco River and Big Creek), mountain lakes (including in and around the Ten Lakes Scenic Area), lowland lakes (including the Eureka Chain Lakes) and Dickey and Murphy Lakes all provide some type of recreational fishing.

FISHERIES MANAGEMENT

The Kootenai River and all its tributaries are managed as wild trout fisheries, emphasizing natural reproduction. The basin is also the focus of native fish recovery efforts. There are over 60 mountain and valley lakes and reservoirs in the Kootenai drainage that consistently provide more than 100,000 angler days of fishing for trout, salmon and other species of fish. There are sixteen native fish species in the Kootenai River drainage including bull trout, white sturgeon, Columbia Basin redband trout (redband trout), westslope cutthroat trout, burbot, kokanee salmon, mountain and pygmy whitefish, northern pike minnow, peamouth chub, longnose dace, redband shiner, longnose and largescale suckers, and torrent and Columbia slimy sculpins. Eleven nonnative fish species inhabit the Kootenai including brook trout, brown trout, rainbow trout, lake trout, northern pike, smallmouth and largemouth bass, yellow perch, black crappie, pumpkinseeds and black bullheads.

Redband trout (Montana's only native rainbow trout) are found in the Kootenai River drainage in the mainstem Kootenai River downstream of Libby Dam and above barriers in some tributaries (primarily in the Yaak and Fisher rivers and Libby and Callahan creeks).

Hatchery rainbow trout were widely introduced throughout the drainage beginning before the turn of the last century. Genetics work indicates that pure-strain redband populations are rare and historic stocking of coastal strains of rainbow trout have produced naturalized wild hybridized populations that have caused loss of much of the original distribution for redband trout. Though several tributaries to the Kootenai River have relatively low levels of hybridization (less than five percent), the only truly secure pure-strain redbands are in Callahan Creek and East Fork Yaak River, where barrier falls stop access of hybridizing species.

Large (up to 30 lbs.) rainbow trout exist in Kootenai River downstream of Libby dam to near the confluence with Fisher River (3.5 river miles). The trout grow large because kokanee salmon from Lake Koocanusa are entrained through the dam and provide an excellent food source. These rainbow trout migrate very little and appear to have created a genetically unique population. Restrictive regulations have been in place since 1994 and have been periodically adjusted to protect and enhance this population.

Bull trout are found throughout the Kootenai River drainage, with fluvial populations moving throughout the Lower Kootenai and the major tributaries of the Fisher River, Libby Creek and Quartz Creek upstream of Kootenai Falls and Callahan Creek and O'Brien Creek downstream of the Falls. Two adfluvial populations exist: 1) Lake Koocanusa where some spawn in Grave

Creek, but the vast majority spawn and rear in British Columbia tributaries, especially the Wigwam River; and 2) Bull Lake, a disjunct population separated from the main Kootenai by water falls on Lake Creek. The Bull Lake population is now imperiled due to recent illegal introductions of northern pike, smallmouth bass and black crappie. Resident life forms likely exist in many smaller tributaries throughout the drainage, although the only confirmed resident population exists in Libby Creek upstream of Libby Falls. Special fishing regulations (timing closures, complete closures) exist on some spawning streams to protect bull trout. A fishing closure between Libby Dam and Fisher River from March 1 to June 1 was created to protect spawning rainbow trout, but also serves to protect bull trout during that time.

In 2004, the USFWS authorized limited sport fishing for bull trout on Lake Koocanusa as requested by FWP after those fisheries were deemed to have reached recovery goals. This activity was intended to benefit bull trout by testing the effects of restoring recreational fishing. In addition, allowing angling for bull trout increased public support for management of a stable bull trout population in Lake Koocanusa. One condition of the permit from the USFWS called for a bull trout permit and catch card system, angler survey, and development of educational information pertaining to the new fishery. The thirteenth year of the angling for bull trout in Lake Koocanusa concluded in 2016. Since 2004, over 15,000 anglers obtained catch cards; they spent nearly 40,000 days fishing for bull trout, caught more than 20,000 and harvested 2,364 bull trout from the Montana portion of the reservoir. Anglers released nearly 90 percent of the bull trout they caught at Lake Koocanusa. In 2012, MFWP determined that harvest (both in Montana and British Columbia) had negatively affected the bull trout population enough to warrant changing the regulation to catch and release. The regulation remained in effect until 2016 when FWP determined it was acceptable to re-establish a one bull trout harvest fishery. FWP continues to work with British Columbia to create commensurate regulations.

Burbot (ling) are native to the Kootenai River drainage, upstream of Libby dam in Lake Koocanusa and Sophie and Glen Lakes, and downstream in the mainstem Kootenai River. Since the creation of Libby Dam, the downstream population has decreased substantially from historic levels. Over-fishing and lack of successful reproduction were believed to be the main reasons for the population decline. This is likely caused by alteration of the natural flow regime for flood control and power production, and the changes to the river ecosystem in terms of flow, substrate, temperature and nutrients. Elimination of former sloughs and backwaters from decades of diking (in Idaho) are also suspected of contributing to their decline. Current fishing regulations do not allow harvest of burbot in the Kootenai River. The burbot population in Lake Koocanusa is in similar condition. Burbot numbers expanded substantially after Lake Koocanusa was initially formed. As the reservoir aged, numbers of burbot and fishing pressure have waned, although there is still a small stable population. A fishing closure during spawning (January 15 through February 28) was enacted in 1992 at the request of local anglers. Due to decreasing harvest, that regulation was removed and the current regulation is two burbot daily and in possession. The Kootenai Tribe of Idaho created a new hatchery near the confluence of Moyie River and Kootenai River in Idaho. Part of that hatchery's function is culture and production of burbot for conservation of the lower Kootenai River population. There is also a possibility that a new burbot facility could be created by BC upstream of Lake Koocanusa to augment the reservoir population.

The Kootenai downstream of Kootenai Falls is also home to a genetically distinct population of white sturgeon. The fishery for white sturgeon has been closed for conservation purposes since 1979 in response to major declines in this population. The Kootenai River white sturgeon was listed as an Endangered Species in 1994. The Kootenai River White Sturgeon Recovery Strategy is currently guiding recovery actions in the basin including flow manipulation, habitat improvement and hatchery supplementation.

Other native salmonids include westslope cutthroat trout and mountain whitefish. Non-native brook trout are present throughout the drainage. Brown trout were illegally introduced and first discovered in Lake Creek, but are now found in the Kootenai River downstream of Kootenai Falls and one was captured by an angler immediately downstream of Libby Dam. Because of these introductions, FWP instituted a no limit harvest downstream of Kootenai Falls and a mandatory catch and kill regulation for brown trout between Libby Dam and Kootenai Falls. Kokanee salmon from Lake Koocanusa--entrained through Libby Dam--also enter the Kootenai River. Nonnative lake trout are found in Spar Lake (closed basin) and have also been found downstream of Libby Dam. While the origin of these fish in the Kootenai River is unknown, it is probably from an illegal introduction.

HABITAT

The Kootenai River basin has annual precipitation ranging from 20-80 inches and snowfall from 40-300 inches. Except during spring runoff when the river and reservoir experience increased turbidity, suspended sediment in the river is generally minimal, making the Kootenai River and Lake Koocanusa clear with good visibility for most of the year.

Roughly 90 percent of the drainage is forested, and logging and associated road building has occurred in nearly all the lower-elevation valleys and on many higher-elevation ridges. The combination of legacy of land management, road construction and some large flood events have altered many streams and led to over-widened and braided sections. Streams in this condition tend to have mobile substrates that are less hospitable for insects and therefore numbers of salmonids.

Coal and hard rock mining are prominent activities in the Kootenai basin, particularly along the Elk and St. Mary rivers in BC and in the northern Cabinet Mountains. Recently proposed additional open pit coal mining has led the Montana Department of Environmental Quality to list Lake Koocanusa as threatened due to selenium. The Sullivan Mine at Kimberley, BC has been the largest metal producer in the basin and in 1981 it was one of the two largest lead-zinc mines in the world. From 1981 to 2010, a large copper and silver mine and chemical floatation mill has operated in the Lake Creek watershed south of Troy, MT. Another copper silver mine (Montanore) is proposed in the headwaters of the Libby Creek drainage.

Dam operations represent the greatest impact to habitat in the Kootenai River because of the biological effects associated with unnatural flow fluctuations, reversed hydrograph (high flows in winter, low flows in summer), and real potential for gas supersaturation problems arising from spilling excess water. Water temperatures and seasonal thermal regimes of the Kootenai River have been unnaturally altered by the construction of Libby Dam. The selective withdrawal system which was installed on Libby Dam to control water temperatures has provided for the release of more natural water temperatures from late spring through fall; however, the system

does not operate during winter months due to isothermal conditions of the reservoir and consequently, winter water temperatures remain warmer than prior to closure of Libby Dam.

Dam operations also impact fish populations in Lake Koocanusa. After an initial surge of productivity when the reservoir was first formed, there has been a slow decline in productivity toward oligotrophy (very low productivity). Between 1977 and 2000, reservoir drawdowns averaged 111 feet, and although they have not been as dramatic since then, they still affect all biological trophic levels and influence the probability of subsequent refill during spring runoff. The reservoir has shifted from a westslope cutthroat/mountain whitefish dominated system to one dominated by northern pike minnow, peamouth chub and kokanee salmon.

The Bonneville Power Administration is required to mitigate for the construction and operation of Libby Dam, and accomplishes much of this by funding the FWP fisheries mitigation program. Mitigation efforts, both onsite (operational) and off-site, are underway to protect, reopen, or reconstruct habitat to partially offset the loss.

FISHING ACCESS

There are 6 publicly owned or managed access sites along the Kootenai River. Acquiring additional access sites along the Kootenai River is a goal, especially downstream of Libby. There are seven (plus one proposed) publicly owned accesses on Lake Koocanusa that access the reservoir at various drawdown levels. The Koocanusa access sites also provide convenient land-based recreation opportunities. None of the Koocanusa or Kootenai River sites are managed by FWP. There are also more than 30 publicly owned/operated boating access sites at many of the larger valley lakes in the drainage.

SPECIAL MANAGEMENT ISSUES

Rainbow trout numbers and mean relative weights directly downstream of Libby Dam have decreased dramatically in recent years and are lower than rainbow trout collected historically and in other downstream sections of the Kootenai River. Possible reasons for the lower condition near Libby Dam include water temperatures, an altered invertebrate community, and presence of a nuisance diatom, *Didymosphenia geminata* that has affected the Kootenai River since 2000. Commonly referred to as "Didymo" or "rock snot", this diatom is found mostly in cold clear streams and rivers with high nitrogen to phosphorus ratios. This includes downstream of dams in much of North America. Didymo attaches itself to the streambed by a long stalk and poses a threat to the aquatic ecosystem because it forms extensive mats on stream beds. Those mats exclude many aquatic insect species important to salmonids. Mat production by Didymo is lowest in the summer and early fall months following elevated discharges from Libby Dam. The mats begin to die off in late March and early April and elevated discharges for white sturgeon recovery will remove varying amounts of mat material but never all the diatoms. During peak mat production, Didymo has the potential to exclude important aquatic invertebrate species including mayflies and caddisflies.

FISHERIES MANAGEMENT DIRECTION FOR KOOTENAI RIVER DRAINAGE

Water	Miles/acres	Species	Recruitment Source	Management Type	Management Direction
Lake Koocanusa	46,500 acres total 28,723 acres in Montana	Bull trout (N)	Wild	Conservation	Provide catch-release recreational opportunity and reinstate limited harvest if compatible. Monitor recreational fishery including by-catch by anglers fishing for large rainbow trout and during derbies. Monitor population in Montana and work with British Columbia counterparts to establish adequate protection to insure opportunity for angling on both sides of the border.
		Rainbow trout	Wild	Quality	Manage harvest to promote trophy fishery opportunity. Monitor recreational fishery all year including during derbies.
		Gerrard rainbow trout	Hatchery	Put, Grow and Take/ Restrictive Regulations/ Quality	Provide trophy harvest and recreational fishery. These are sterile progeny of trout known to reach trophy size. Monitor efficacy of no- take regulations for marked fish less than 22 inches created to promote growth to trophy size.
		Kokanee salmon	Wild	Liberal Regulations	Manage harvest to enhance numbers and sizes. Monitor population in Montana and British Columbia to identify population structure and opportunities to improve length at harvest for angling on both sides of the border.
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Water	Miles/acres	Species	Recruitment Source	Management Type	Management Direction
		Burbot (N)	Wild	Restrictive Regulations	Manage harvest to protect spawning adults. Monitor population in Montana and British Columbia to identify population structure and opportunities to improve length at harvest for angling on both sides of the border. Identify potential for population enhancement through hatchery augmentation.
Habitat needs and activities: In cooperation with DEQ, monitor lake water and sediment quality and fish to determine effects of selenium produced from British Columbia open-pit coal mines. Identify reservoir operations that improve reservoir productivity and quality angling.					
Tobacco River and Tributaries - Headwaters downstream to Lake Koocanusa	22.9 miles	Bull trout (N)	Wild	Conservation	Continue yearlong closure on angling for bull trout. Educate anglers on catch-and-release techniques to reduce by-catch mortality. Continue to work with agencies to improve habitat in core areas. Work with irrigators and agencies to eliminate adult loss and reduce/eliminate fry loss in system.
		Westslope cutthroat trout (N)	Wild	General	Enhance fluvial populations for conservation and angling opportunities.
		Rainbow trout	Wild	General	Maintain current angling opportunity and harvest level.
		Brook Trout	Wild	Suppression	Where practical, maintain liberal harvest opportunities. Where feasible reduce/eliminate competing populations to meet native species goals.
Habitat needs and activities: Water rights are over allocated in Grave Creek; work with irrigators to maintain/improve flows to support native species.					

Water	Miles/acres	Species	Recruitment Source	Management Type	Management Direction
Eureka Chain Lakes: Frank Rock Lost Timber Rock Other Small Lakes	149 acres 37 acres 35 acres 31 acres	Rainbow trout, (Gerrard, Eagle Lake, Redband)	Hatchery	Put, Grow and Take	Maintain current angling opportunity and harvest level. For Lost Lake, manage trout harvest to enhance size. Do strain evaluation to determine age class success and return to creel.
		Kokanee salmon	Hatchery	Put, Grow and Take	Provide opportunity for recreational harvest when feasible (e.g., Frank Lake) based on hatchery availability and water quality (alkalinity levels).
		Brook trout	Hatchery	Put, Grow and Take	Conduct EA on feasibility of re-introducing brook trout into selected closed basin lakes.
Habitat needs and activities: Monitor total alkalinity, dissolved oxygen levels and lake elevations to help determine stocking success					
Glen Lake	301 acres	Kokanee salmon	Hatchery	Put, Grow and Take	Maintain current angling opportunity and harvest level. Continue to monitor population and determine stocking rates that promote opportunity for larger kokanee.
		Rainbow trout (Gerrard)	Hatchery	Quality	Explore opportunity to stock limited number of Gerrard rainbow trout to produce trophy fishery.
		Burbot	Wild	General	Maintain limited harvest and recreational opportunity. Monitor population to identify population structure and opportunities to improve length at harvest for quality angling through regulation. Identify potential for population enhancement through hatchery augmentation.
Habitat needs and activities: Work with Lincoln County to reduce impacts of shoreline construction. Lake elevations are controlled by Glen Lake irrigation district.					

Water	Miles/acres	Species	Recruitment Source	Management Type	Management Direction
Ten Lakes Scenic area lakes: Big Therriault Little Therriault Rainbow Upper Wolverine Lower Wolverine Bat Blue Bird	56 acres 28 acres 9 acres 8 acres 5 acres 5 acres 3 acres	Westslope cutthroat trout (N)	Wild/Hatchery	Put, Grow and Take/ General	Maintain current angling opportunity and harvest level. Where practical enhance populations to meet native species goals. Where feasible, protect non-introgressed populations and restore genetic integrity to introgressed populations. Adjust/eliminate stocking in lakes with natural reproduction.
Tetrault (Carpenter) Lake	96 acres	Rainbow trout (Gerrard, Eagle Lake, redband), Westslope cutthroat trout Largemouth bass	Hatchery Wild	Put, Grow and Take Suppression	Maintain current angling opportunity and harvest level. Where practical, maintain current angling opportunity and harvest level. Where feasible reduce/eliminate populations to meet native species goals.
Sophie Lake	221 Acres	Rainbow trout (Gerrard, Eagle Lake, Redband) Westslope cutthroat trout Kokanee salmon Burbot	Hatchery Hatchery Wild	Put, Grow and Take Put, Grow and Take General	Maintain current angling opportunity and harvest level. When feasible based on hatchery availability, provide opportunity for recreational harvest. Maintain limited harvest and recreational opportunity. Monitor population to identify population structure and opportunities to improve length at harvest for quality angling through regulation. Identify potential for population enhancement through hatchery augmentation.
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Water	Miles/acres	Species	Recruitment Source	Management Type	Management Direction
		Northern pike, yellow perch, bluegill, sunfish	Wild	Suppression	Where practical, maintain current angling opportunity and harvest level. Where feasible reduce/eliminate populations to meet native species goals.
Kootenai River and Tributaries - Libby Dam Downstream to Fisher River	3.5 miles	Bull Trout (N)	Wild	Conservation	Continue yearlong closure on angling for bull trout. Educate anglers on catch-and-release techniques to reduce by-catch mortality. Continue to work with agencies and mining interests to improve habitat in core areas.
		Rainbow trout	Wild	Quality/ Restrictive Regulations	Continue to improve fishery through restrictive regulations to promote trophy sizes. Identify limiting factors leading to population changes.
		Mountain whitefish (N)	Wild	General	Maintain numbers. Continue to monitor population size and trend.
Habitat needs and activities: Identify limiting factors associated with <i>Didymosphenia geminata</i> and determine if blooms/mats can be reduced to improve fishery.					
Fisher River and Tributaries - Headwaters to Kootenai River	33.2 miles	Bull trout (N)	Wild	Conservation	Continue yearlong closure on angling for bull trout. Educate anglers on catch-and-release techniques to reduce by-catch mortality. Continue to work with agencies and mining interests to improve habitat in core areas.
Continue next page		Redband trout (N), Westslope cutthroat trout (N)	Wild	Conservation	Maintain current angling opportunity and harvest level. Where feasible enhance populations to meet native species goals. Where feasible, protect non-introgressed populations and restore genetic integrity to introgressed populations.

Water	Miles/acres	Species	Recruitment Source	Management Type	Management Direction
		Rainbow trout	Wild	General/ Suppression	Where practical, maintain current angling opportunity and harvest level. Where feasible reduce/eliminate hybridized populations to meet native species goals.
		Brook trout	Wild	Suppression	Where practical, maintain liberal harvest opportunities. Where feasible reduce/eliminate competing populations to meet native species goals.
Habitat needs and activities: Fisher River impacted by road and railroad construction. Investigate methods to improve habitat.					
Happy's Inn Small Lakes: Leon Bootjack Cibid Topless Cad	19 acres 12 acres 11 acres 9 acres 4 acres	Rainbow trout (Redband, Arlee), Westslope cutthroat trout	Hatchery	Put, Grow and Take	Maintain current angling opportunity and harvest level. In Cibid Lake, promote redband trout. In Cad Lake promote westslope cutthroat trout. In other lakes, stock rainbow trout and westslope cutthroat trout on alternate years.
Crystal Lake Lavon Lake	184 acres 17 acres	Kokanee salmon	Hatchery/ Wild	Put, Grow and Take	Manage harvest and stocking levels to enhance numbers and sizes. Continue to monitor contribution to population of hatchery versus wild kokanee and determine stocking rates that promote opportunity for larger kokanee.
		Rainbow trout (Gerrard, hatchery rainbow trout)	Hatchery	Put, Grow and Take	Maintain current angling opportunity and harvest level. Continue to monitor population to determine which strain may produce opportunity for larger trout.
		Yellow Perch	Wild	General	Reduce or eliminate yellow perch to benefit recreationally important kokanee salmon.

Water	Miles/acres	Species	Recruitment Source	Management Type	Management Direction
Horseshoe Lake	138 acres	Tiger muskie	Hatchery	Quality/ Restrictive Regulations	Manage for trophy opportunity and to maintain pressure on northern pikeminnow and sucker populations to improve opportunity to establish a limited salmonid fishery. Stock limited numbers when available.
		Kokanee salmon	Hatchery	Put, Grow and Take	Manage harvest and stocking levels to enhance numbers and sizes. Establish and monitor success of stocking in this high predator system.
		Smallmouth bass	Wild	Suppression	Illegal introduction. Maintain liberal harvest opportunities. Reduce/eliminate competing populations to meet native species goals.
Loon Lake Little Loon Lake	222 Acres 9 Acres	Redband trout	Wild	Conservation	Maintain current angling opportunity and harvest level. Where feasible enhance populations to meet native species goals. Where feasible, protect non-introgressed populations and restore genetic integrity to introgressed populations.
		Northern pike	Wild	General	Illegal introduction. Continue to provide for liberal harvest to provide for recreational opportunity and decrease predation on yellow perch and bass.
		Largemouth bass	Wild	Quality	Maintain current angling opportunity and harvest level. Through regulation, enhance opportunity for trophy sizes.
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Water	Miles/acres	Species	Recruitment Source	Management Type	Management Direction
		Smallmouth bass	Hatchery	Quality/ Put, Grow and Take	Maintain current angling opportunity and harvest level. Through regulation, enhance opportunity for trophy sizes. Determine if continued stocking is warranted.
Island Lake Lynch Lake	221 Acres 41 Acres	Yellow perch	Wild	Quality	Maintain current angling opportunity and harvest level. Monitor population structure to determine if quality perch population can be sustained.
		Largemouth bass	Wild/ Hatchery	Quality/ Put, Grow and Take	Maintain current angling opportunity and harvest level. Through regulation, enhance opportunity for trophy sizes. Identify if continued stocking is warranted
		Northern pike	Wild	General/ Suppression	Illegal introduction. Provide for liberal harvest to provide for recreational opportunity and decrease predation on yellow perch and bass.
Kootenai River and Tributaries (Fisher River to Kootenai Falls.)	28.6 Miles	Bull trout (N), Westslope cutthroat trout (N)	Wild	Conservation	Continue yearlong closure on angling for bull trout. Educate anglers on catch-and-release techniques to reduce by-catch mortality. Continue to work with agencies and mining interests to improve habitat in core areas. Enhance fluvial populations for conservation and WCT angling.
		Rainbow trout	Wild	Restrictive Regulations	Manage harvest to enhance numbers and sizes.
		Mountain whitefish (N)	Wild	General	Maintain numbers. Continue to monitor population size and trend.

Water	Miles/acres	Species	Recruitment Source	Management Type	Management Direction
		Brown trout	Wild	General/ Suppression	Illegal introduction. Where practical, maintain liberal harvest opportunities. Where feasible reduce/eliminate competing populations to meet native species goals.
Habitat needs and activities: Improve habitat to support ecosystem function and production of trout and whitefish. Identify limiting factors associated with <i>Didymosphenia geminata</i> and determine if blooms/mats can be reduced to improve fishery					
Libby Creek and Tributaries (Headwaters to Kootenai River)	29.2 Miles	Bull trout (N)	Wild	Conservation	Continue yearlong closure on angling for bull trout. Educate anglers on catch-and-release techniques to reduce by-catch mortality. Continue to work with agencies and mining interests to improve habitat in core areas.
		Redband trout (N)	Wild	Conservation	Maintain current angling opportunity and harvest level. Where feasible enhance populations to meet native species goals. Develop conservation strategy and hatchery.
		Westslope cutthroat trout (N)	Wild	Conservation	Where feasible, protect non-introgressed populations and restore genetic integrity to introgressed populations
		Rainbow trout	Wild	General/ Suppression	Where practical, maintain current angling opportunity and harvest level. Where feasible reduce/eliminate hybridized populations to meet native species goals
		Brook trout	Wild	Suppression	Where practical, maintain liberal harvest opportunities. Where feasible reduce/eliminate competing populations to meet native species goals.

Water	Miles/acres	Species	Recruitment Source	Management Type	Management Direction
Cabinet Wilderness Lakes:		Redband trout (N), Westslope cutthroat trout (N)	Wild/ Hatchery	Put, Grow and Take/ General	Maintain current angling opportunity and harvest level for high mountain lake angling opportunity. Where practical enhance populations to meet native species goals. Where feasible, protect non-introgressed populations and restore genetic integrity to introgressed populations. Adjust/eliminate stocking in lakes with adequate natural reproduction.
Leigh	129 acres				
Upper Cedar	63 acres				
Granite	57 acres				
Upper Hanging Valley	53 acres				
Double	37 acres				
Lower Geiger	34 acres				
Lower Sky	23 acres	Brook trout	Wild	General/ Suppression	Where practical, maintain current angling opportunity and harvest level. Where feasible reduce/eliminate competing populations to meet native species goals
Lower Hanging Valley	21 acres				
Minor	20 acres				
Lower Cedar	19 acres				
Wishbone	16 acres				
Upper Geiger	13 acres				
Barlee	10 acres				
Big Bear	9 acres				
Bramlet	9 acres				
Kootenai River and Tributaries (Kootenai Falls to Idaho Border)	21.7 Miles	Bull trout (N), Westslope cutthroat trout (N)	Wild	Conservation	Continue yearlong closure on angling for bull trout. Educate anglers on catch-and-release techniques to reduce by-catch mortality. Continue to work with agencies and mining interests to improve habitat in core areas. Enhance fluvial populations for conservation and WCT angling.
		Rainbow trout	Wild	General	Manage harvest to enhance numbers and sizes.
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Water	Miles/acres	Species	Recruitment Source	Management Type	Management Direction
		Brown trout	Wild	Suppression	Monitor status of this recently illegally introduced species. Identify opportunities to reduce or eliminate to benefit native fish and recreationally important rainbow trout
		Mountain whitefish (N)	Wild	General	Maintain numbers. Survey population size and trend.
Yaak River and Tributaries (Headwaters to Kootenai River)	53.4 Miles	Redband trout (N), Westslope cutthroat trout (N)	Wild	Conservation	Maintain current angling opportunity and harvest level. Where feasible enhance populations to meet native species goals. Where feasible, protect non-introgressed populations and restore genetic integrity to introgressed populations
		Rainbow trout	Wild	General/ Suppression	Where practical, maintain current angling opportunity and harvest level. Where feasible reduce/eliminate hybridized populations to meet native species goals
		Brook trout	Wild	General/ Suppression	Maintain liberal harvest opportunities. Where feasible reduce/eliminate competing populations to meet native species goals.
Bull Lake	1162 Acres	Bull trout (N)	Wild	Conservation	Closed to angling. Educate anglers on catch-and-release techniques to reduce by-catch mortality. Continue to work with agencies to improve habitat in core area
		Westslope cutthroat trout (N)	Wild	General	Maintain current angling opportunity and harvest level. Consider regulations that better promote native species goals.
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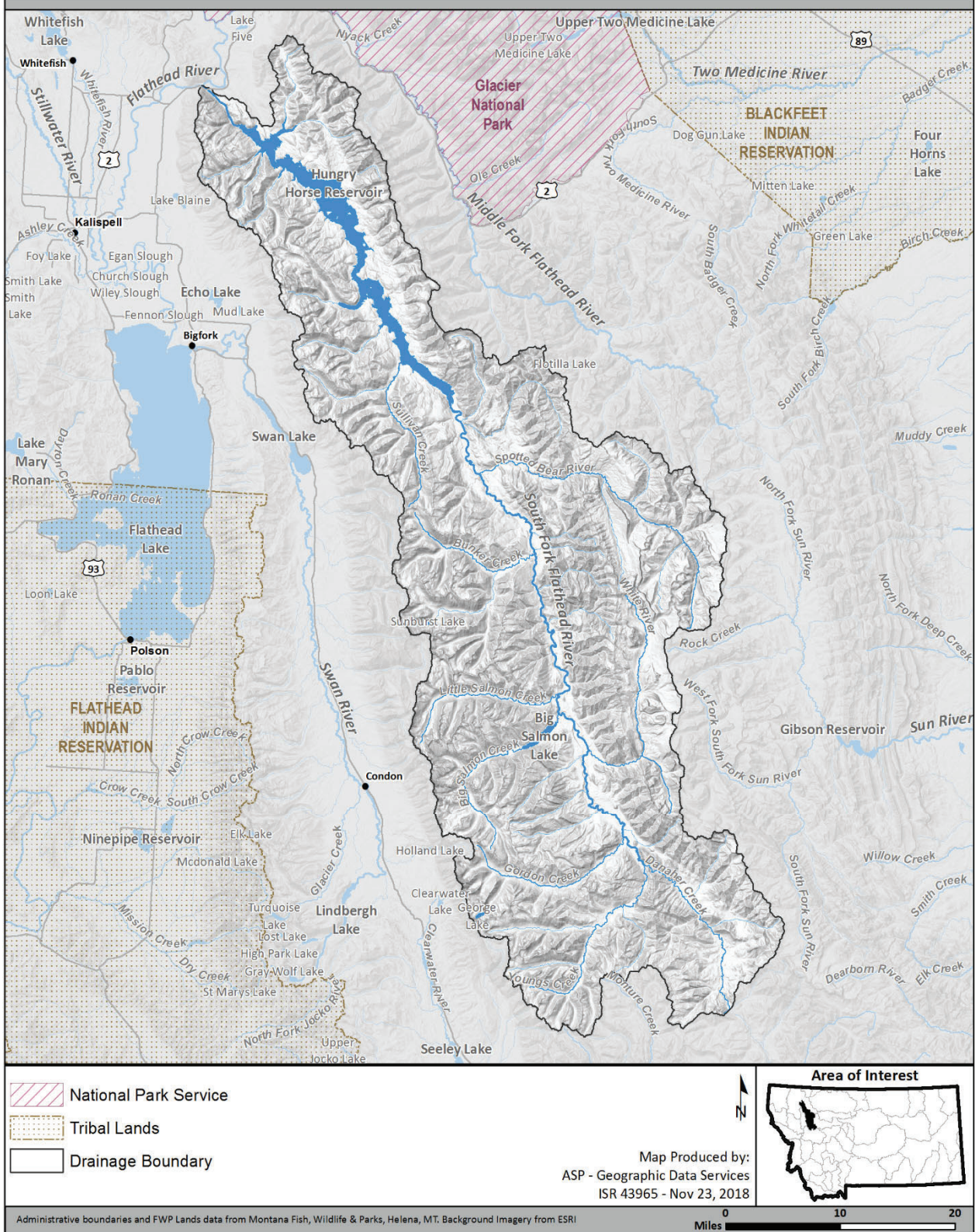
Water	Miles/acres	Species	Recruitment Source	Management Type	Management Direction
		Kokanee salmon	Wild/ Hatchery	Put, Grow and Take	Manage harvest and stocking levels to enhance numbers and sizes. Monitor contribution to population of hatchery versus wild kokanee and determine stocking rates that promote opportunity for larger kokanee.
		Northern pike Largemouth bass smallmouth bass	Wild	Suppression	Illegal introductions. If feasible reduce/eliminate populations by liberalizing regulations to meet native species and recreational kokanee fishing goals.
Habitat needs and activities: Work with agencies and others to protect/maintain/enhance Keeler Creek spawning and rearing habitat for bull trout. Monitor lake for Eurasian water milfoil known in the vicinity (Clark Fork drainage)					
Spar Lake Little Spar Lake	383 Acres 37 Acres	Lake trout	Wild	General	Maintain current angling opportunity and harvest level. Consider liberalizing limits to reduce numbers to improve size and benefit Put-Grow-Take fisheries.
		Westslope cutthroat trout (N), Rainbow trout	Hatchery	Put, Grow and Take	Maintain current angling opportunity and harvest level. In Little Spar Lake promote westslope cutthroat trout exclusively. In Spar Lake determine stocking rates and species/strains to best promote return to creel in a lake dominated by lake trout.
		Kokanee salmon	Hatchery	Put, Grow and Take	In Spar Lake, manage harvest and stocking levels to enhance numbers and sizes.
Savage Lake	71 Acres	Largemouth bass	Hatchery/Wild	Put, Grow and Take	Maintain current angling opportunity and harvest level. Through regulation, enhance opportunity for trophy sizes. Identify if continued stocking is warranted.
Continue next page					

Water	Miles/acres	Species	Recruitment Source	Management Type	Management Direction
		Yellow perch	Wild	Quality	Maintain current angling opportunity and harvest level. Monitor population structure to determine if quality perch population can be sustained.
Grouse Lake	10 Acres	Westslope cutthroat trout	Hatchery	Put, Grow and Take	Maintain current angling opportunity and harvest level
Kilbrennan Lake	55 Acres	Redband trout	Hatchery/ Wild	Put, Grow and Take	Maintain current angling opportunity and harvest level. Determine stocking rates to best promote return to creel in a lake dominated by brook trout.
		Brook trout	Wild	General	If practical, maintain current angling opportunity and harvest level. If feasible, reduce numbers to improve size and benefit the Put-Grow-Take and wild redband population.
		Black bullhead	Wild	Suppression	Illegal introduction. If practical, maintain current angling opportunity and harvest level. If feasible, reduce/eliminate competing populations to meet native species goals.
Alvord Lake	53 Acres	Largemouth bass	Wild	Quality	Maintain current angling opportunity and harvest level. Through regulation, enhance opportunity for trophy sizes.
		Yellow perch	Wild	General	Maintain current angling opportunity and harvest level. Monitor population structure as part of effort to sustain perch population

Water	Miles/acres	Species	Recruitment Source	Management Type	Management Direction
Hoskins Lake Vinal Lake	35 acres 16 acres	Westslope cutthroat trout (N)	Wild	Put, Grow and Take	Maintain current angling opportunity and harvest level.
Northwest Peaks Lakes: Upper Hawkins Burke Lower Hawkins Davis	14 acres 14 acres 7 acres 5 acres	Westslope cutthroat trout (N) Brook trout	Hatchery/ Wild Wild	Put, Grow and Take/ General/ Conservation Suppression	Maintain current angling opportunity and harvest level for high mountain lakes. Where practical enhance populations to meet native species goals. Where feasible, protect non-introgressed populations and restore genetic integrity to introgressed populations. Adjust/eliminate stocking in lakes with adequate natural reproduction. Where practical, maintain current angling opportunity and harvest level. Where feasible reduce/eliminate competing populations to meet native species goals.
Fish Lakes: South North Middle	16 acres 9 acres 3 acres	Westslope cutthroat trout (N)	Hatchery/ Wild	Put, Grow and Take/ General/ Conservation	Maintain current angling opportunity and harvest level for mountain lakes. Where practical enhance populations to meet native species goals. Where feasible, protect non-introgressed populations and restore genetic integrity to introgressed populations. Adjust/eliminate stocking in lakes with adequate natural reproduction.

South Fork Flathead River Drainage

MONTANA FWP



SOUTH FORK FLATHEAD RIVER DRAINAGE

PHYSICAL DESCRIPTION

The South Fork Flathead River drainage includes Hungry Horse Reservoir, the South Fork Flathead River and its tributaries. The South Fork originates from the Bob Marshall Wilderness, at the confluence of Young's Creek and Danaher Creek. From its headwaters, the river flows north for approximately 60 miles through the Bob Marshall Wilderness before entering Hungry Horse Reservoir. Hungry Horse Dam, created in 1953, lies approximately 5.3 miles upstream of the confluence of the South Fork and the main stem of the Flathead River. At 564 feet, Hungry Horse was the third largest and second tallest concrete dam in the world at the time of completion. The dam is managed for hydroelectric production as well as for flood control. The South Fork Flathead watershed includes some of the most pristine forested landscape in the western United States. The majority of the land base in the South Fork drainage is publicly owned, with land management responsibilities belonging to the Flathead National Forest. The vast majority of this National Forest land is protected as wilderness, though there are roaded parcels around Hungry Horse Reservoir.

There are 62 natural lakes in the drainage, totaling 2,308 surface acres. The South Fork drainage is bordered by the Swan Mountains to the west and the Flathead Range to the east. The natural lakes present in the South Fork drainage are typically mountain lakes in the headwaters of many South Fork tributaries. The largest natural lake is Big Salmon Lake (972 acres). Few lower elevation lakes exist, with Handkerchief Lake (51 acres) being one of the larger, more popular destinations.

FISHERIES MANAGEMENT

The South Fork Flathead River drainage provides one of the most unique fisheries in Montana. Construction of Hungry Horse Dam left almost the entire South Fork isolated from the remainder of the Flathead system. Because of this isolation, the South Fork provides for an almost entirely native fish assemblage, with outstanding fisheries for westslope cutthroat and bull trout. The South Fork represents the largest connected population of migratory, genetically unaltered westslope cutthroat trout left in the United States. Anglers in the South Fork will find exceptional catch rates for large cutthroat in an area that provides solitude and scenery that make Montana the last best place. In addition to westslope cutthroat, anglers visiting Hungry Horse Reservoir and the upstream South Fork also have the unique opportunity to target bull trout, a species listed as threatened under the Endangered Species Act. While most waters were closed to fishing for bull trout after the listing in 1998, the South Fork drainage was reopened under a permit from the USFWS in 2004. The conditions of this permit allowed for catch and release fishing for bull trout in the South Fork Flathead River and angler harvest of two bull trout per year in Hungry Horse Reservoir. The bull trout population in Hungry Horse and the connected South Fork is typical of most adfluvial populations and anglers have the chance at targeting bull trout up to 15 pounds.

The South Fork drainage is managed as a wild, native trout fishery, emphasizing natural reproduction. The basin is also the focus of native fish recovery efforts. The South Fork drainage is home to many native fish species including bull trout, westslope cutthroat trout, mountain whitefish, pygmy whitefish, northern pikeminnow, longnose and largescale sucker, and sculpin. The only non-native fish species present in the South Fork is Arctic grayling, although this species is limited to Handkerchief Lake, which once held the state record for angler-caught grayling. Regulations in the wilderness portion of the South Fork protect against overharvest and maintain a viable recreational angling experience while allowing the adventurous anglers to enjoy a camp meal of freshly caught trout. Guided float trips exist on the South Fork, though outfitting is regulated through a permit system administered by the USFS. The remote nature of the upper South Fork largely limits the number of anglers utilizing the river. However, anecdotal evidence suggests that angler use may be increasing and future surveys may determine the need for additional regulation.

The fishery downstream of Hungry Horse Dam provides for a limited tailwater section, though access is difficult due to steep banks and swift current. This section of river is dominated by native fish species, though rainbow and lake trout have been observed in this location. Historically, water exiting Hungry Horse Dam was released from the bottom of the reservoir, altering the stream temperature for the rest of the Flathead River downstream of the confluence with the South Fork. In 1995 a selective withdrawal system was installed and has since provided a more natural temperature regime which has increased westslope cutthroat and bull trout abundance. In recent years the occurrence of the diatom algae *Didymosphenia geminata* appears to have increased below Hungry Horse Dam. Scientists are currently investigating the potential impacts of the increase in diatom density.

High mountain lakes in the South Fork were historically stocked with cutthroat trout. However, modern genetic analysis has revealed that many of these cutthroat trout plants in the early part of the 20th century had genetic material other than westslope cutthroat trout. Since the 1980's any lakes stocked have been with genetically pure westslope cutthroat from the Washoe Park State Fish Hatchery. In 2007, FWP implemented a watershed-wide restoration project aimed at removing these headwater sources of non-native genes and therefore protecting the important population of the South Fork. This project was completed in 2017 and lakes have been repopulated with diverse genetic strains of westslope cutthroat trout from the Sekokini Springs hatchery.

HABITAT

The South Fork Flathead River drainage contains some of the most pristine forest land in the lower 48 States. Much of the watershed is located within the Bob Marshall Wilderness. When combined with the neighboring Scapegoat and Great Bear Wilderness areas, the Bob Marshall Wilderness Complex is the second largest wilderness-protected land area in the lower 48 with over 1.5 million acres. Because of this level of protection, fisheries habitat remains largely in the same condition as it was prior to human civilization. Migratory fish populations thrive in connected stream networks with little man-made disturbance.

Downstream of the wilderness boundary the drainage is still largely publicly owned, with the USFS responsible for land management. As is the case with many managed forests, years of timber harvest have left a legacy of roads upon the landscape. However, while historic logging practices may have negatively impacted streams and their associated fisheries, modern forestry Best Management Practices and conservation efforts have greatly improved fisheries habitat from its previous condition. Fish passage has been provided at road crossings on either side of Hungry Horse Reservoir, maintaining connection to spawning and rearing habitat for fish inhabiting the reservoir. Funding for this restoration work has come from both BPA mitigation as well as USFS funding sources.

FISHING ACCESS

Although there are abundant recreational fishing opportunities in the South Fork drainage, FWP has no official fishing access sites. Access points along both the South Fork Flathead River and Hungry Horse Reservoir are managed by the USFS. These sites include a combination of primitive boat launches and dispersed camping as well as developed campgrounds and boat ramps designed to handle considerable traffic.

SPECIAL MANAGEMENT ISSUES

South Fork Flathead Drainage Westslope Cutthroat Trout Conservation Program

The South Fork Flathead River drainage comprises more than half of the remaining interconnected habitat for westslope cutthroat trout within this species' historic range. However, long-term persistence of this native species is threatened by hybridization with introduced rainbow trout and Yellowstone cutthroat trout that were stocked decades ago in many historically fishless headwater lakes in the South Fork drainage. To minimize the spread of hybridization, FWP developed the South Fork Flathead Drainage Westslope Cutthroat Trout Conservation Program. The objective of this multi-year project was to remove sources of nonnative trout in 21 lakes and reestablish these fisheries with pure westslope cutthroat trout. Rotenone was successfully used to chemically remove introduced trout in 15 lakes and their associated tributaries, and genetic swamping is being used in an additional six lakes as an alternative technique to restoring westslope cutthroat trout. Additional efforts in the South Fork Flathead include the development and use of local broodstocks to conserve genetic variation in this native species.

FISHERIES MANAGEMENT DIRECTION FOR SOUTH FORK FLATHEAD RIVER DRAINAGE

Water	Miles/acres	Species	Recruitment Source	Management Type	Management Direction
South Fork Flathead River and Tributaries (Headwaters Downstream to the Wilderness Boundary)	40 miles	Bull trout (N)	Wild	Conservation	Manage for catch-and-release angling through a catch-card permit system.
		Westslope cutthroat trout (N)	Wild	Conservation	Maintain numbers and quality of the fishery. Provide a limited harvest fishery allowing anglers to keep small fish for camp fare while maintaining large fish and spawning fish. Eliminate threats to genetic purity. Monitor westslope cutthroat trout for increases in hook scar rates and catch rates related to increases in angler use.
		Mountain whitefish (N)	Wild	General	Maintain numbers. Begin to understand population size and trend.
South Fork Flathead River and Tributaries (Wilderness Boundary to Hungry Horse Reservoir)	20 miles	Bull trout (N)	Wild	Conservation	Manage for catch-and-release angling through a catch-card permit system.
		Westslope cutthroat trout (N)	Wild	Conservation	Provide a limited harvest fishery. Conduct population estimates as part of evaluation of the effectiveness of the short catch-and-release section. Eliminate threats to genetic purity. Monitor westslope cutthroat trout for increases in hook scar rates and catch rates related to increases in angler use.
		Mountain whitefish (N)	Wild	General	Maintain numbers. Begin to understand population size and trend.
Spotted Bear Lake <small>Continue next page</small>	12 acres	Westslope cutthroat trout	Wild/ Hatchery	Put, Grow and Take	Provide for harvest and recreational opportunity. Continue to monitor for stocking

Water	Miles/acres	Species	Recruitment Source	Management Type	Management Direction
					evaluation. Plants appear to have poor success in recent years.
Hungry Horse Reservoir	23,577 acres	Bull trout (N)	Wild	Conservation	Regulate harvest and monitor migratory populations for conservation and angling through a catch card system.
		Westslope cutthroat trout (N)	Wild	Conservation	Provide recreational angling opportunity. Eliminate threats to genetic purity
		Mountain whitefish (N)	Wild	General	Provide recreational angling opportunity
Habitat needs and activities: Improve habitat to reduce disturbance, minimize future threats, and provide ecosystem function.					
Handkerchief Lake	51 acres	Westslope cutthroat trout (N)	Wild	Conservation	Provide recreational angling opportunity. Eliminate threats to genetic purity
		Arctic grayling	Wild	General	Provide for harvest and recreational opportunity. Continue establishment of Red Rock grayling genetic reserve.
Habitat needs and activities: Lake was treated with rotenone as part of the South Fork Flathead Westslope Cutthroat Conservation project. Red Rock Arctic grayling and pure westslope cutthroat were stocked after treatment. Continued monitoring of grayling genetics will be necessary to ensure long-term viability of the population.					
South Fork Flathead River Drainage - Mountain Lakes	60 lakes 2,245 acres	Westslope cutthroat trout (N)	Wild/ Hatchery	Conservation/ Put, Grow and Take	Eliminate sources of non-native trout in 21 lakes to protect genetic purity of westslope cutthroat in the drainage. Provide recreational fishing opportunity for a variety of fish sizes and catch rates. Manage with a basic stocking rate of 100 westslope cutthroat fingerlings per acre every 3 years. Adjust number and frequency of plants based on extent of natural reproduction, fishing pressure and creating different fishing opportunities. Coordinate with wilderness management when necessary.

Swan River Drainage

MONTANA FWP

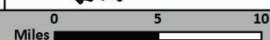


- Tribal Lands
- Drainage Boundary



Map Produced by:
ASP - Geographic Data Services
ISR 43965 - Nov 23, 2018

Administrative boundaries and FWP Lands data from Montana Fish, Wildlife & Parks, Helena, MT. Background Imagery from ESRI



SWAN RIVER DRAINAGE

PHYSICAL DESCRIPTION

The Swan River drainage includes the Swan River and its tributaries, and major lakes such as Swan Lake, Holland Lake, and Lindbergh Lake and numerous smaller lakes. The Swan River originates from the Mission Mountain Wilderness, flowing out of Gray Wolf Lake, then continuing through Lindbergh Lake. From its headwaters, the river flows north for 52 miles through Missoula and Lake Counties before entering Swan Lake. The Swan River then continues north and west into Flathead County and through Bigfork Dam, a 4.1 megawatt hydroelectric facility constructed in 1902, before entering Flathead Lake. The lowest mile of the Swan River flows through a high gradient canyon (Wild Mile) that is popular among whitewater enthusiasts. The Swan watershed includes dramatic mountain peaks in the headwaters and heavily forested slopes and wetlands on the valley floor. Much of the land in the Swan drainage is publicly owned, with large parcels being managed by both the Flathead National Forest and the Swan River State Forest.

There are 72 natural lakes in the drainage totaling 7,125 acres. The Swan drainage is bordered by the Mission Mountains (and Mission Mountain Wilderness) to the west and the Swan Mountains to the east. Most natural lakes are mountain lakes in the headwaters of many Swan drainage tributaries on both the east and west sides of the watershed. The largest lake is Swan Lake (3,269 acres). Lindbergh Lake (815 acres) and Holland Lake (414 acres) are the other two large, valley bottom lakes and are located in the upstream end of the drainage. Several other valley bottom lakes exist (Van, Peck, Shay, Russ, and Fran Lakes) and are popular for recreation and angling opportunities.

FISHERIES MANAGEMENT

The Swan River drainage provides diverse fisheries opportunities typical of the northwest portion of Montana. While many opportunities exist for anglers to fish outstanding multi-species water bodies, the Swan is also home to one of Montana's last strongholds for bull trout, a species listed as threatened under the Endangered Species Act. The Swan drainage is a perfect example of FWP's dual mission of providing recreational fishing opportunity while conserving our valuable native fish resources.

The Swan River is managed as a wild trout fishery, emphasizing natural reproduction. The basin is also the focus of native fish recovery efforts. The Swan River drainage is home to many native fish species including bull trout, westslope cutthroat trout, mountain whitefish, pygmy whitefish, northern pikeminnow, peamouth, longnose and largescale sucker, and sculpin. Several introduced fish species also inhabit the Swan drainage including brook trout, rainbow trout, lake trout, northern pike, kokanee salmon, brook stickleback, central mudminnow, and yellow perch. The fishery of the Swan River itself is largely focused on rainbow and westslope cutthroat trout. Regulations for these trout species protect against overharvest and maintain a viable recreational angling experience. Brook trout are also present in the upper Swan River and make up a portion of the catch when fishing the river. Guided float trips exist on the Swan River, though outfitting is regulated through a permit system administered by the DNRC and the

USFS. Though the Swan River was once a stronghold for bull trout, intentional angling is not allowed in the river upstream of Swan Lake.

The fishery downstream of Swan Lake is considerably different from the upper river. Warm outflows from Swan Lake limit trout production; though a quality rainbow trout fishery exists during spring months. Prior to entering Flathead Lake, the Swan River is impounded by Bigfork Dam. Trout habitat in the portion of river influenced by this impoundment is minimal, and the fishery is dominated by northern pike. Below Bigfork Dam, the Swan River's gradient increases dramatically and provides recreational opportunity for whitewater enthusiasts. A limited fishery for rainbow and lake trout exists in this reach, though access and wading conditions are difficult.

The Swan drainage is home to some of the most robust populations of bull trout in Montana. Adfluvial bull trout populations exist in Swan Lake, Lindbergh Lake, and Holland Lake. The bull trout population in Swan Lake has historically been so strong that when the species was listed as threatened under the Endangered Species Act in 1998, it remained the only water body in Montana where anglers could fish for, and keep, bull trout. Angling for bull trout is still permissible, however beginning in 2012, anglers were required to release all bull trout caught in Swan Lake. Intentionally targeting bull trout in Lindbergh Lake, Holland Lake, and the Swan River and its tributaries is not allowed. Spawning tributaries Elk, Goat, Lion, and Squeezer creeks are closed on a year-round basis to prevent disturbance of bull trout and unintentional harvest of juvenile bull trout by anglers who mistake them for brook trout.

The Swan drainage contains several valley-bottom lakes that provide quality recreational fishing opportunities. Van, Shay, Fran, and Peck Lakes are all stocked with rainbow trout and provide anglers with put-and-grow fisheries with scenic value and relative solitude, as defined boat ramps do not exist. Although not directly connected to the Swan River, Loon, Horseshoe, and Echo Lakes also contain recreational fisheries for species such as largemouth bass, smallmouth bass, lake whitefish, and kokanee salmon.

High mountain lakes are predominantly stocked with westslope cutthroat trout, except Heart Lake and Island Lake which are periodically stocked with golden trout. Many of the mountain lakes in the Swan drainage are in high elevation, alpine settings within the Mission Mountain Wilderness or Swan Mountains. Because of the remote nature of these lakes, many are intentionally left fishless, many are not stocked currently, and some were never stocked officially but may have been stocked by sportsmen. Stocking records for the lakes previously planted with fish reveal that undesignated cutthroat, which may have been hybridized with rainbow or Yellowstone cutthroat trout, were planted prior to the development of a pure westslope cutthroat brood. Therefore, some lakes may still contain hybridized populations of cutthroat trout, regardless of modern stocking plans. Lakes are stocked at a basic rate of 100 westslope cutthroat per acre every 3 years. Stocking density and frequency are adjusted relative to natural reproduction, if any, and fishing pressure. Management is coordinated with wilderness management if needed.

HABITAT

The Swan River valley was historically and continues to be a working forest. Much of the land ownership is a combination of private timber land, national forest, and Montana school trust lands. As is the case with many managed forests, years of timber harvest have left a legacy of

roads upon the landscape. However, while historic logging practices may have negatively impacted streams and their associated fisheries, the Swan valley is fortunate to be at the forefront of progressive land management approaches. In 2000, Plum Creek Timber Company released its Native Fish Habitat Conservation Plan (HCP). This plan allowed for an adaptive management approach to continue to actively manage forest lands, while providing protective measures for threatened fish species such as bull trout. Since then, the DNRC has released its own habitat conservation plan providing for many of the same conservation measures included in the effort done by Plum Creek. In addition to these plans, FWP has purchased conservation easements in many bull trout spawning streams. These easements protect the riparian vegetation necessary for bull trout spawning and rearing habitat.

In recent years, land acquisitions in the Swan drainage have been designed to protect both terrestrial and aquatic species. Important bull and westslope cutthroat trout habitat are included in these lands. Land parcels that were previously checker-boarded with national forest lands have been purchased by the USFS. Similarly, former Plum Creek lands in the Swan State Forest are currently held by The Nature Conservancy, with plans to transfer ownership to the State of Montana. Additionally, FWP has purchased several large conservation easements in bull trout core areas and has placed restrictions on land management to benefit bull and westslope cutthroat trout.

FISHING ACCESS

Although there are abundant recreational fishing opportunities in the Swan valley, FWP has very few official fishing access sites. Access points provided by FWP include one on the lower Swan River, downstream of Swan Lake, and one on Bigfork Bay where the Swan River enters Flathead Lake. All other public access points in the Swan are provided by either DNRC or USFS. These sites include a combination of primitive boat launches and dispersed camping as well as developed campgrounds and boat ramps designed to handle considerable traffic.

The USFS provides the only public access point on Swan Lake. The site contains a day-use area, boat ramp, campground, and public swimming area. Because the site is the only public access point, it has been used by FWP for several angler surveys. Additionally, FWP maintains an InfoMax recording system at the site which broadcasts information regarding native species management, angling opportunities, and way to minimize the risk of spreading Aquatic Invasive Species (AIS).

SPECIAL MANAGEMENT ISSUES

Experimental removal of lake trout in Swan Lake

Nonnative lake trout represent a significant threat to the Swan Lake bull trout population. In 2009 the Swan Valley Bull Trout Working Group initiated an eight-year experimental lake trout removal project. This project was a feasibility study to examine if limited gillnetting effort could reduce lake trout numbers and improve conditions for bull trout and kokanee. The project was monitored annually using predetermined evaluation criteria to examine the efficacy of removal efforts. The methods used in this project were designed to provide consistent data for statistical analyses while maximizing lake trout removal and minimizing bycatch of other fish species.

After eight years of targeted gillnetting, a total of 59,752 lake trout were removed from Swan Lake. Incidental bycatch of other fish species was relatively low. Modeled lake trout exploitation rates suggest that this level of gillnetting effort can create mortality rates near 50% for age-3 and age-4 lake trout, as well as adult lake trout on known spawning areas. However, some age classes were less vulnerable to the netting and unknown spawning areas likely exist. Indices examining how this level of effort affects the lake trout population showed no significant trend regarding lake trout abundance or relative weight but netting on known spawning areas did appear effective in removing the larger, older individuals. During this same period, bull trout and kokanee experienced initial declines but have since stabilized. However, data suggest that further declines in bull trout may be possible.

This project provided information critical to making informed decisions about the future management of the Swan Lake fisheries. Improved monitoring of the Swan Lake fish community is being developed to further assist biologists with evaluating any future lake trout harvest scenarios. Additionally, collaborative solutions will continue to be explored for ways to protect the bull trout population of the Swan Valley.

Illegal introduction of walleye in Swan Lake

In October 2015 two walleye were captured in Swan Lake during lake trout suppression netting activities. This represented the first known occurrence/report of walleye in the Swan drainage. Walleye are not native to Swan Lake and the interconnected Flathead system. The nearest known population of walleye occurs in the lower Clark Fork River system. That population is also considered to be the result of an illegal introduction, as walleye are not native to any Montana water bodies west of the continental divide. A Swan Lake walleye population, if fully established, represents a risk to native bull trout populations in the Swan and Flathead drainages. Additional sport fish populations could also be at risk if walleye were to become established. It is unknown whether walleye would be successful in Swan Lake, but the habitat and thermal regime are similar to other water bodies where walleye live. Considerable time and money has been spent to improve conditions for native fish (bull trout and westslope cutthroat trout) in the Swan and Flathead systems, and persistence of these species could be further compromised if walleye become established.

The two Swan Lake walleye were examined, measured, weighed, and otoliths were taken for geochemical analysis. The fish were then submitted to FWP enforcement as evidence. An emergency regulation was put in place that required anglers to kill any walleye caught in Swan Lake, and to turn the fish in to FWP. This regulation was put in place to help biologists collect any additional walleye that may have been introduced, and to take away the incentive of promoting illegal introductions. Since this regulation was put in place, FWP has not received any angler-caught walleye and additional netting has not captured any walleye. In the meantime, microchemical analysis was conducted by FWP on the otoliths from the two walleye captured. This analysis confirmed that the walleye did not originate from Swan Lake, but rather were moved to the lake sometime in June of that year. Biologists also gathered walleye otoliths from across the state and performed the same microchemical analyses to determine the origin of the illegal Swan Lake walleye. Results of this analysis revealed that the walleye originated from Lake Helena, which is part of the Missouri River reservoir system in the Helena valley. The catch-and-kill regulation continues to be in place and FWP has increased monitor netting in Swan Lake.

FISHERIES MANAGEMENT DIRECTION FOR SWAN RIVER DRAINAGE

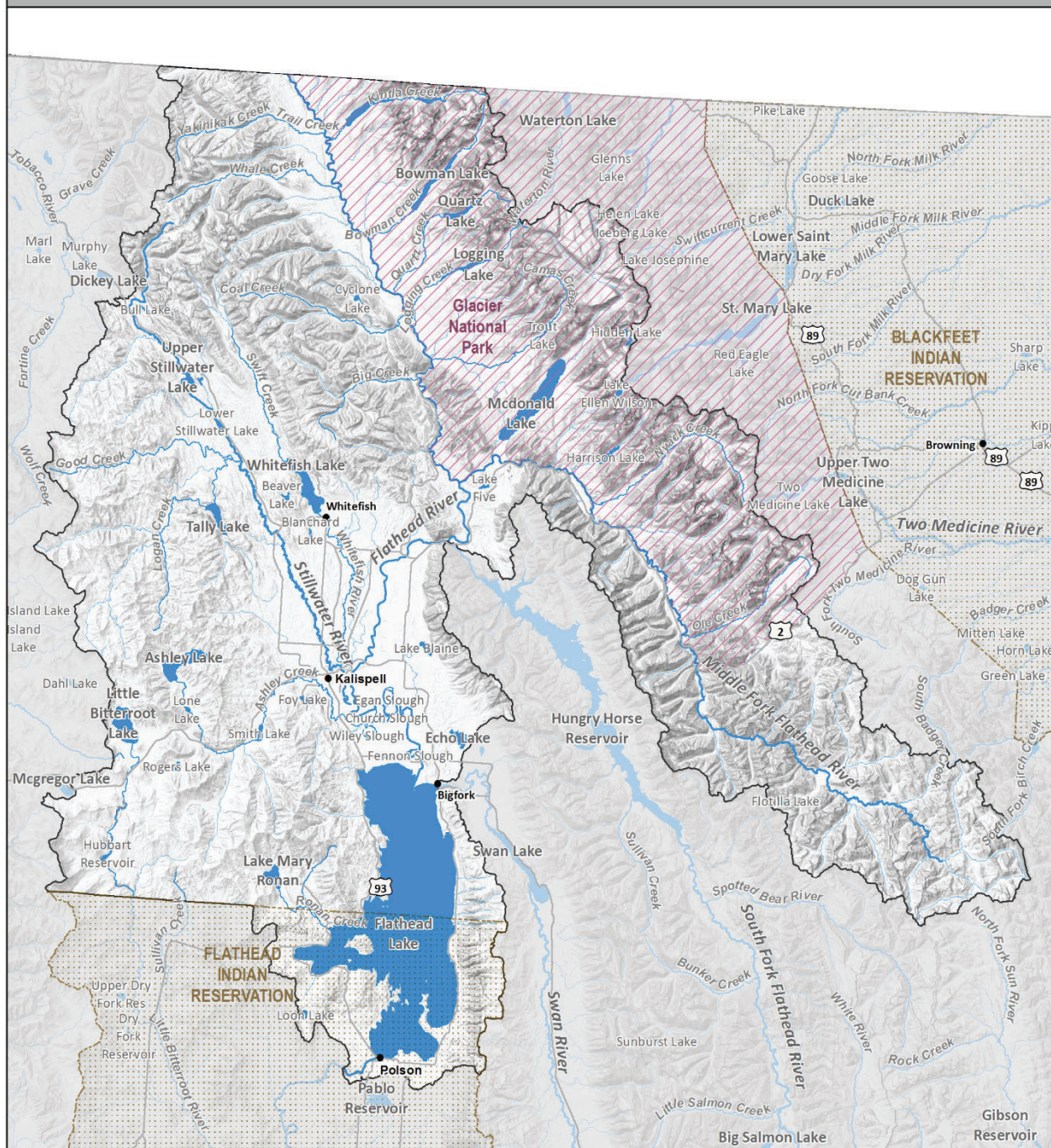
Water	Miles/acres	Species	Recruitment Source	Management Type	Management Direction
Swan River and Tributaries (Headwaters Downstream to Swan Lake)	52 miles	Bull trout (N)	Wild	Conservation	Continue yearlong closure on angling for bull trout and minimize incidental catch of bull trout. Maintain spawning tributary mouth closures as needed.
		Westslope cutthroat trout (N)	Wild	Conservation/ General	Eliminate harvest and enhance fluvial populations for conservation and WCT angling. Consider isolation of WCT populations if hybridization is a threat and habitat is sufficient to allow persistence.
		Rainbow trout	Wild	General/ Restrictive Regulations	Minimize harvest to provide for a quality fishery in one section. Maintain numbers to allow harvest in some sections.
		Mountain whitefish (N)	Wild	General	Maintain numbers. Begin to understand population size and trend.
		Brook trout	Wild	General	Allow for harvest in tributaries that do not contain bull trout.
Habitat needs and activities: Stream crossing upgrades and road BMP's for most forest lands. Enhance habitat to favor native trout and whitefish.					
Lindbergh Lake	815 acres	Bull trout (N)	Wild	Conservation	Continue yearlong closure on angling for bull trout and minimize incidental catch of bull trout. Enhance migratory populations for conservation.
		Westslope cutthroat trout (N)	Hatchery	Put and Take	Evaluate stocking to determine success to creel. Provide recreational angling opportunity.
Continue next page					

Water	Miles/acres	Species	Recruitment Source	Management Type	Management Direction
		Kokanee salmon	Hatchery	Put, Grow and Take	Provide for harvest and recreational opportunity.
		Lake trout	Wild	Suppression	Increase monitoring and evaluate potential tools to reduce lake trout abundance to benefit native and recreationally important fish species.
Holland Lake	414 acres	Bull trout (N)	Wild	Conservation	Continue yearlong closure on angling for bull trout and minimize incidental catch of bull trout. Enhance migratory populations for conservation.
		Westslope cutthroat trout (N)	Hatchery	Put and Take	Evaluate stocking to determine return to creel. Provide recreational angling opportunity.
		Kokanee salmon	Hatchery	Put, Grow and Take	Provide for harvest and recreational opportunity.
		Yellow perch	Wild	General	Provide for harvest and recreational opportunity.
		Lake trout	Wild	Suppression	Increase monitoring and evaluate potential tools to reduce lake trout abundance to benefit native and recreationally important fish species.
Habitat needs and activities: Maintain open channel at inlet to allow access for spawning bull trout.					
Swan Lake	3,269 acres	Bull trout (N)	Wild	Conservation	Catch and release fishing allowed but not harvest. Enhance migratory populations for conservation.
Continue next page		Rainbow trout, Westslope cutthroat trout (N)	Wild	General	Provide recreational angling opportunity.

Water	Miles/acres	Species	Recruitment Source	Management Type	Management Direction
		Kokanee salmon, Northern pike, Yellow perch	Wild	General	Provide for harvest and recreational opportunity.
		Lake trout	Wild	Suppression	Continue to evaluate tools to effectively reduce numbers to benefit native fish and recreationally important kokanee.
		Walleye	Wild	Suppression	Evaluate unauthorized introduction.
Swan River and Tributaries (Swan Lake to Flathead Lake)	12 miles	Bull trout (N)	Wild	Conservation	Continue yearlong closure on angling for bull trout and minimize incidental catch of bull trout.
		Westslope cutthroat trout (N)	Wild	Conservation	Eliminate harvest and enhance fluvial populations for conservation and WCT angling. Consider isolation of WCT populations if hybridization is a threat and habitat is sufficient to allow persistence.
		Rainbow trout	Wild	General	Manage trout harvest to support recreational fishing and minimize impacts on native fish.
		Mountain whitefish (N)	Wild	General	Maintain numbers. Begin to understand population size and trend.
		Northern pike	Wild	General	Provide opportunity for harvest and recreational angling.
Habitat needs and activities: Improve habitat to support ecosystem function and production of trout and whitefish. Salvage/rescue fish entrained in Bigfork Dam canal during canal maintenance dewatering.					

Water	Miles/acres	Species	Recruitment Source	Management Type	Management Direction
Echo Lake	695 acres	Largemouth bass	Wild/ Hatchery	Put, Grow and Take/ Quality/ Restrictive Regulations	Provide for a quality recreational fishery for at least 1 bass >12" at a rate of 0.25 fish per hour. Maintain 1> 12" limit to maintain larger bass and protect spawners. Assess contribution of hatchery plants.
		Rainbow trout	Hatchery	Put, Grow and Take	Provide recreational angling opportunity. Assess return of stocked trout.
		Kokanee salmon	Hatchery	Put, Grow and Take	Provide for harvest and recreational opportunity for 12" salmon.
		Northern pike	Wild	General	Provide recreational angling opportunity.
		Lake whitefish, Yellow perch	Wild	General	Provide recreational angling opportunity.
		Smallmouth bass	Wild	General	Provide recreational angling opportunity.
Habitat needs and activities: Lakeshore flooding in 2011 prompted the closing of Echo Lake to wake producing boat speeds. The lake has flooded in other high-snowpack years since 2011. Weekly lake elevation surveys now occur during summer to better inform managers of potential future flood events.					
Loon Lake	45 acres	Largemouth bass	Wild/ Hatchery	General	Provide for a recreational fishery. Assess contribution of hatchery plants. Continue to monitor largemouth bass nest counts.
		Rainbow trout	Hatchery	Put and Take/ Quality	Provide for a large (>18") rainbow trout fishery and recreational angling opportunity.
		Yellow perch	Wild	General	Provide recreational angling opportunity.

Water	Miles/acres	Species	Recruitment Source	Management Type	Management Direction
Horseshoe Lake	41 acres	Smallmouth bass	Wild/Hatchery	Restrictive Regulations	Provide recreational angling opportunity. Assess contribution of hatchery fish. Install habitat structures to improve spawning and survival. Yellow perch were first observed in Horseshoe Lake in 2011 as the result of an illegal plant. FWP monitoring confirmed presence and reproduction in May 2012. Eliminate harvest and suppress as possible to remove incentive to move to other waters.
		Pumpkinseed	Wild	General	
		Yellow perch	Transfer	Suppression	



-  National Park Service
-  Tribal Lands
-  Drainage Boundary

Map Produced by:
ASP - Geographic Data Services
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Administrative boundaries and FWP Lands data from Montana Fish, Wildlife & Parks, Helena, MT. Background Imagery from ESRI

0 12.5 25
Miles

FLATHEAD RIVER DRAINAGE

PHYSICAL DESCRIPTION

The Flathead River drainage includes Flathead Lake, the Flathead River and its tributaries, including the North Fork and Middle Fork of the Flathead River (the South Fork of the Flathead is not included in this management area), the Whitefish River drainage, the Stillwater River drainage and the numerous small drainages on the westside of the Flathead Valley, draining over 7,000 square miles. The North Fork of the Flathead River begins in British Columbia, Canada and the Middle Fork in the Great Bear and Bob Marshall Wilderness areas of the Flathead National Forest. Glacier National Park lies between the two forks. Flathead Lake is bisected by the northern boundary of the Flathead Indian Reservation of the Confederated Salish and Kootenai Tribes. This management area is located in Flathead and Lake Counties. The Flathead watershed includes 10,000-foot peaks in the headwaters and heavily forested slopes, agricultural lands and wetlands on the valley floor.

There are 183 lakes in the drainage, totaling 156,966 surface acres. Numerous large lakes exist in the drainage, including Flathead Lake, Whitefish Lake, Upper and Lower Stillwater Lakes, Tally Lake, Ashley Lake, Little Bitterroot Lake, Hubbard Reservoir, Lake Mary Ronan, Lake Blaine, Echo Lake and many small valley and mountain lakes of less than 350 surface acres. There are three general types of lake settings that provide a wide diversity of fishing opportunity: high elevation alpine lakes that are ice free for less than half of the year that provide summer trout fishing; moderate elevation mountain setting lakes that are accessible most of the year providing a mix of fish species and opportunity; and valley floor lakes that are very accessible and provide opportunity for both warm and cold water fish species.

FISHERIES MANAGEMENT

Flathead Lake is the most popular fishery in the drainage and one of the top ten water bodies for fishing effort in Montana. Flathead Lake is large at about 123,000 surface acres. The lake's outstanding natural resources and diversity of recreational opportunities, combined with its proximity to Kalispell, Polson and Missoula, contribute to its popularity. It is a destination vacation site for out-of-state and foreign visitors.

Flathead Lake and river are managed as a wild trout fishery, emphasizing natural reproduction and native fish. Fishing regulations across the drainage are very restrictive for native species and very liberal for harvest of nonnative fish species. The basin is also a focus for native fish recovery efforts. Flathead Lake is home to eleven native fish species including bull trout, westslope cutthroat trout, mountain and pygmy whitefish, northern pike minnow, peamouth, longnose and largescale sucker, reidside shiner, and two species of sculpin. Twelve nonnative fish species inhabit the Flathead including lake trout, lake whitefish, brook trout, rainbow trout, northern pike, brook stickleback, black bullhead, largemouth and smallmouth bass, crappie and yellow perch. Dominant fish species vary from westslope cutthroat, bull trout and brook trout in the headwaters, to a mixture of warm and cold water species at lower elevations. Angling on Flathead Lake occurs year-round and is most popular in the early spring, summer and fall. Lake

trout, lake whitefish and yellow perch comprise most of the catch. Winter ice fishing occurs annually on bays as ice allows.

The Flathead River is the most popular stream fishery in the drainage. The mainstem reach on the valley floor upstream of the lake is the most popular section providing summer fishing for westslope cutthroat trout and a fall run of lake whitefish. The connected sloughs near Flathead Lake provide a mixed fishery primarily for warm water species. The North and Middle forks of the Flathead River provide diverse recreational activities and popular westslope cutthroat trout fishing.

Bull trout exhibit two life forms, with adults residing in a lake (adfluvial) or river (fluvial) and spawning in upstream tributaries. Juveniles rear in the tributaries for one to three years before migrating to adult habitats downstream. Fish move freely throughout the entire Flathead system, including all major river tributaries and lakes. The one exception is Hungry Horse Dam which cut off about 40% of the Flathead drainage. The dam prevents Flathead Lake bull trout from migrating into the South Fork of the Flathead River. The North and Middle forks provide spawning and rearing habitat for the Flathead Lake and River population. There are other bull trout populations in other lakes and tributary systems in the Flathead drainage, including Whitefish Lake, Upper Stillwater Lake, Cyclone and Frozen Lakes, and lakes in Glacier National Park. Fishing regulations are very restrictive for bull trout in the Flathead drainage, where fishing for bull trout is not allowed. Major spawning tributaries (Big, Coal, Whale, Trail, Granite, Lodgepole, Morrison, and Long creeks) are closed all year to fishing. In addition, special fishing restrictions (stream mouth closures) exist on some spawning streams to protect spawning bull trout.

The larger lakes in the area contain mixed nonnative recreational fisheries. Ashley Lake, Little Bitterroot Lake and Lake Mary Ronan primarily provide popular kokanee salmon fisheries during both summer and winter months. Lake Mary Ronan is the kokanee egg source for the State hatchery stocking program. Echo Lake and Lake Blaine provide popular largemouth bass fisheries. With the exception of Lake Mary Ronan kokanee, these are wild self-sustaining fish populations.

Numerous small mid-elevation lakes are stocked with westslope cutthroat trout, rainbow trout or Arctic grayling providing popular put-and-grow fisheries. Lakes are stocked on a one to four-year rotation to maximize fish growth or catch rates. Four family fishing ponds in the valley are heavily stocked with catchable size trout and provide many thousands of days of angling. High mountain lakes are stocked with westslope cutthroat trout.

HABITAT

Water quality is very important to Flathead Valley residents. At this time, water quality in the Flathead Lake and river system is very good, providing for drinking and municipal uses, swimming and recreation, growth and propagation of fish and associated aquatic life, and as an agricultural and industrial water supply. FWP works to protect high water quality in many ways. FWP provides input to the permitting process for a number of stream protection laws (SPA, 310) in an effort to minimize impacts and water degradation associated with human development. Biologists administer over a hundred such permits a year in the Flathead drainage.

In the North Fork of the Flathead River drainage there are a number of large coal deposits. Over the last four decades, there has been exploration of mining reserves and attempts to begin open-pit coal mining--activities that threaten water quality in the river and Flathead Lake. A recent cooperative effort between British Columbia, Montana and numerous government agencies and non-governmental groups resulted in a prohibition to mining in the North Fork of the Flathead River. This prevents future degradation of water quality and fish habitat from coal mining and other resource development.

The USFS and FWP have completed stream habitat restoration improvements in bull trout spawning and rearing habitat. For example, large trees have been added to several miles of Hallowat and Coal creeks to provide complex habitat to impacted stream reaches. These and other projects will improve bull trout and westslope cutthroat trout habitat in these streams.

Land acquisitions in the Flathead drainage are designed to protect both terrestrial and aquatic species. Important bull trout and westslope cutthroat trout habitat are on these lands. FWP and partners have completed numerous private land conservation easements along the Flathead River, protecting miles of stream bank and many acres of riparian vegetation. This activity will help protect water quality in the Flathead drainage and important habitat and migratory routes for fish and wildlife.

The Bonneville Power Administration (BPA) is required to mitigate for the construction and operation of Hungry Horse Dam on the South Fork of the Flathead River and accomplishes much of this by funding the FWP mitigation program. In 1995, FWP, BPA and the BOR constructed a selective withdrawal structure on Hungry Horse Dam. This structure pulls water from various depth levels in the reservoir to provide natural water temperatures to the Flathead River downstream. Prior to construction the dam released cold water from the bottom of the reservoir that significantly reduced stream temperatures in the Flathead River for 49 miles downstream. Restoring natural temperatures improved conditions for fish and aquatic insects. This group of agencies also implemented a dam water release strategy to more closely mimic the natural river annual flow regime. The dam is now operated to not only provide flood protection and energy production but also maintain flows in the river downstream similar to those prior to dam construction.

FISHING ACCESS

There are more than 14 publicly owned or managed access sites along the Flathead River downstream of the confluence of the North and Middle forks. There are more than 15 publicly owned or managed access sites along the North and Middle forks. There are more than 20 publicly owned or managed access sites and six privately owned access sites along Flathead Lake. Some access sites are located near local communities and, in addition to river access, provide convenient land-based recreation opportunities. Most of the river and lake access points provide boat launching opportunities, docks, bathroom facilities and parking. FWP will continue to pursue opportunities to increase access on popular water bodies, such as Flathead Lake and Whitefish Lake, where user numbers are increasing to levels above the capacity of existing sites and on water bodies where no public access currently exists such as Lake Blaine.

SPECIAL MANAGEMENT ISSUES

Westslope Cutthroat Hybridization

Pure westslope cutthroat populations within the interconnected Flathead drainage are threatened by hybridization with rainbow trout. Hybrids have shown both increased abundance and distribution in recent decades. FWP is investigating methods to prevent rainbow trout and Westslope cutthroat trout genes from expanding in the drainage.

Illegal Fish Introductions

Illegal fish introductions are a continuing problem in Montana with more than half of the documented 600+ introductions occurring in northwest Montana. Illegal introductions impact both native and recreational fisheries, reduce fishing opportunity and increase management costs. As a disincentive to further illegal introductions, fishery managers will look to potential alternatives such as to either prohibit harvest on panfish or not provide management such as fishing limits on game fish such as pike, bass and walleye in selected waters, depending on the situation and species involved.

Aquatic Invasive Species

Introductions of aquatic invasive species into unoccupied bodies of water continues to pose a threat to Montana's waterways. The discovery of *dreissenid* mussel veligers in Tiber and Canyon Ferry Reservoirs in 2016 has increased concerns about introduction into the headwaters of the Columbia River Drainage. This threat has been a focus in the Flathead Valley due to high boater use and tourism. FWP continues to work with our partners to monitor AIS in the Flathead Valley and prevent new introductions.

FISHERIES MANAGEMENT DIRECTION FOR FLATHEAD RIVER DRAINAGE

Water	Miles/acres	Species	Recruitment Source	Management Type	Management Direction
Flathead River - Headwaters downstream to confluence with Flathead Lake including the North and Middle Forks, and Sloughs	198 miles	Bull trout (N)	Wild	Conservation	Continue yearlong angling closures for all fish on primary bull trout spawning streams and closure on angling for bull trout in the Flathead River and Forks.
		Westslope cutthroat trout (N)	Wild	Conservation	Eliminate harvest and maintain or expand populations for conservation and catch and release westslope cutthroat angling. Consider isolation of westslope cutthroat populations if hybridization is a threat and habitat is sufficient to allow persistence.
		Mountain whitefish (N)	Wild	General	Maintain numbers. Begin to understand population size and trend.
		Lake whitefish, Northern pike, Yellow perch, Lake trout, Brook trout, Rainbow trout, Black crappie	Wild	General/Suppression	Provide angling harvest opportunity to reduce numbers to help meet native species goals. Investigate removal of rainbow-cutthroat trout hybrids and rainbow trout to reduce future hybridization.
Habitat needs and activities: Restore habitat to favor native bull trout, WCT and mountain whitefish in headwater stream reaches.					
Stillwater River, Ashley Creek and Tributaries, Whitefish River	75 miles, 47 miles plus Tributaries, 23 miles	Bull trout (N)	Wild	Conservation	Continue yearlong closure on angling for bull trout.
Continue next page					

Water	Miles/acres	Species	Recruitment Source	Management Type	Management Direction
		Westslope cutthroat trout (N)	Wild	Conservation/ General	Maintain or expand populations of westslope cutthroat trout. Consider isolation of populations if hybridization is a threat and habitat is sufficient to allow persistence. Provide angling opportunity including harvest for westslope cutthroat trout where possible.
		Rainbow trout, Brook trout, Northern pike	Wild	General	Maintain current levels of angling harvest
		Mountain whitefish (N)	Wild	General	Maintain numbers. Begin to understand population size and trend.
Habitat needs and activities: Continue to manage connectivity to favor native fishes.					
Whitefish Lake, Tally Lake, Upper Stillwater Lake, Lower Stillwater Lake	3,315 acres,	Bull trout (N)	Wild	Conservation	Continue yearlong closure on angling for bull trout.
	1,211 acres,	Westslope cutthroat trout	Wild	General	Maintain or expand populations of westslope cutthroat trout. Consider isolation of populations if hybridization is a threat and habitat is sufficient to allow persistence. Provide angling opportunity including harvest for westslope cutthroat trout where possible.
	592 acres,				
252 acres	Lake trout, Northern pike, Yellow perch, Rainbow trout, Lake whitefish	Wild	General/ Restrictive Regulations	Provide angling harvest opportunity.	

Water	Miles/acres	Species	Recruitment Source	Management Type	Management Direction
Little Bitterroot Lake, Ashley Lake	2,970 acres 2,850 acres	Kokanee salmon	Wild	General/ Liberal Regulations	Evaluate harvest limits to increase the average size at harvest without noticeably reducing catch rates in Ashley Lake. Maintain Little Bitterroot Lake as a back up brood stock.
		Rainbow trout, Rainbow x cutthroat trout hybrid, Westslope cutthroat trout (N)	Hatchery/ Wild	Put, Grow and Take/ Quality	Evaluate stocking and/or harvest limits to produce trophy size fish and improved angler catch rates. Continue stocking triploid Gerrard rainbow trout in Little Bitterroot Lake to produce a trophy fishery. Continue hybrid trout hatchery on Ashley Lake to increase abundance.
		Yellow perch	Wild	General	Provide angling harvest opportunity
Echo Lake, Lake Blaine	695 acres, 382 acres	Kokanee salmon	Hatchery/ Wild	Put, Grow and Take	Evaluate stocking and/or harvest limits to optimize angler catch rate.
		Rainbow trout	Hatchery	Put, Grow and Take	Evaluate stocking and/or harvest limits to optimize angler catch rate and assess stocking success.
		Largemouth bass	Hatchery	Restrictive Regulations	Provide angling harvest opportunity. Maintain bass regulations on Echo Lake to protect spawning fish and an abundant bass population.
		Yellow perch, Northern pike	Wild	General	Provide angling harvest opportunity
Small valley floor lakes Continue next page	Each less than 350 acres	Largemouth bass, Yellow perch, Northern pike	Wild	General	Provide angling harvest opportunity.

Water	Miles/acres	Species	Recruitment Source	Management Type	Management Direction
		Westslope cutthroat trout (N), Rainbow trout, Brook trout, Arctic grayling	Hatchery/Wild	General/ Put, Grow and Take	Evaluate stocking and/or harvest limits to optimize angler catch rate.
Small mountain lakes	Each less than 350 acres	Westslope cutthroat trout (N), Rainbow trout, Brook trout, Arctic grayling	Hatchery/ Wild	Put, Grow and Take/ General	Stock at a basic rate of 100 westslope cutthroat fingerlings every 3 years. Adjust stocking rates based on natural reproduction and fishing pressure to provide a range of fish sizes and catch rates. Replace non-native fish with westslope cutthroat when they threaten downstream native fish populations. Leave some lakes intentionally fishless.
Family Fishing Ponds - Pine Grove, Shady Lane, Dry Bridge, Buffalohead	Each less than 5 acres	Westslope cutthroat trout (N), Rainbow trout	Hatchery	Put and Take/ Family Fishing Water	Provide angling harvest opportunity for youths and fishing opportunities for families emphasizing high catch rates and safe, convenient access to urban areas.
Flathead Lake	123,000 acres	Bull trout (N)	Wild	Conservation	Continue yearlong closure on angling for bull trout.
		Westslope cutthroat trout (N)	Wild	Conservation	Eliminate harvest and maintain or expand populations for conservation and catch and release cutthroat angling.
		Lake whitefish, Northern pike, Yellow perch, Lake trout, Rainbow trout	Wild	General/ Suppression	Provide angling harvest opportunity to reduce numbers to help meet native species goals. Coordinate with CSKT on lake management.

Water	Miles/acres	Species	Recruitment Source	Management Type	Management Direction
Lake Mary Ronan, Hubbart Reservoir	1,513 acres, 480 acres	Westslope cutthroat trout (N), Rainbow trout	Hatchery	Put, Grow and Take	Evaluate stocking and/or harvest limits to improve angler catch rate.
		Kokanee salmon	Hatchery	Put, Grow and Take/ Restrictive Regulations	Evaluate stocking and/or harvest limits to optimize size of fish and angler catch rate. Maintain wild brood population in Lake Mary Ronan to provide kokanee for MT waters.
		Yellow perch	Wild	General	Provide angling harvest opportunity and reduce impacts on other game fish.